

Appln No.
Amdt date January 4, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A catheter insertion device comprising
a catheter hub (2) to whose distal end ~~having a catheter (4) is tube attached a distal end thereof,~~ a needle hub (8) having a hollow needle (9) attached thereto ~~on~~ and extending ~~in the ready position~~ through the catheter hub (2) and the catheter (4) ~~tube when in a ready position,~~ a needle guard element (13) arranged displaceably on the needle (9) in the catheter hub (2) and having an engaging section (13e) which engages with an engaging means (9b) formed near the needle tip when the hollow needle is removed from the catheter hub (2), wherein
characterized in that
a check valve is disposed between the catheter (4) tube and the needle guard element (13)
a check valve (7; 17) is arranged in the catheter hub (2), through which the hollow needle (9) extends in the ready position and which automatically closes after the removal of the needle.
2. (Currently amended) The device according to claim 1, wherein the catheter hub (2) has a two-part form comprising a distal hub element and a proximal hub element, and the check valve (7; 17) is held between ~~the~~ a distal hub element (3) and ~~the~~ a proximal hub element, (5) which are joined to one another.
3. (Currently amended) The device according to claims 1 and 2, wherein the check valve (17) has a plurality of radially elastically expandable valve flaps (17e) configured to ~~which can be moved into the an open position by the fluid pressure generated from of a syringe (14) inserted in the catheter hub.~~

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4. (Currently amended) The dDevice according to claim 31, wherein ~~on the catheter hub comprises an~~ the inner circumference of the catheter hub (2) and a radial projection (5b) projecting radially from the inner circumference, which is configured to engage with ~~formed by which the needle guard element (13) is held in the ready position.~~

5. (Currently amended) The dDevice according to claim 5, wherein as ~~at the~~ check valve there is inserted in the catheter hub (2) comprises a valve disc, (7) which has radial slits (7a) starting from the a middle section of the valve disc,; and a valve actuating element, (10; 11, 12), which is displaceably guided in the catheter hub and has a hollow space for receiving the needle guard element ~~(13).~~

6. (Currently amended) The dDevice according to claim 5, wherein the valve actuating element (11, 12) is formed as a hollow cylinder with a truncated cone-shaped distal end section.

7. (Currently amended) The dDevice according to claim 6, wherein ~~on the inner circumference of the hollow cylindrical valve actuating element (11)~~ comprises an inner circumference and a radial projection (11d) is formed for positioning the needle guard element (13).

8. (Currently amended) The dDevice according to claim 5, wherein the valve actuating element (10) has a truncated cone-shaped abutting section (10a) from which in the axial direction at least one plunger (10b) protrudes.

9. (Currently amended) The dDevice according to ~~one of the preceding claim 1s,~~ wherein the needle guard element is formed as a spring clip (13) which has diametrically opposite spring arms (13a, 13b) starting from a rear wall (13c) provided with a bore, wherein the bent end sections of the spring arms (13a, 13b) overlap and block the needle tip when the engaging means (9b) of the needle comes to abut on the rear wall (13c).

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10. (New) A catheter insertion device comprising:

a catheter tube attached to an end of a catheter hub, the catheter tube comprising a lumen and the catheter hub comprising an interior cavity;

a needle defining a needle axis attached to an end of a needle hub, said needle projecting, through the lumen of the catheter tube;

a valve for regulating fluid flow positioned inside the interior cavity of the catheter hub; and

a needle guard element comprising two needle guard arms crossing the needle axis of the needle positioned inside the catheter hub adjacent the valve.

11. (New) A catheter insertion device comprising:

a catheter tube attached to an end of a catheter hub, the catheter tube comprising a lumen and the catheter hub comprising an interior cavity;

a needle defining a needle axis attached to an end of a needle hub, said needle projecting, through the lumen of the catheter tube and comprising an engaging section near a needle tip;

a valve for regulating fluid flow positioned inside the interior cavity of the catheter hub, said valve comprising an opening and the needle projecting through the opening; and

a needle guard element comprising an opening adapted to contact the engaging section of the needle positioned between the valve and the needle hub.